

REMARKS/ARGUMENTS

I. STATUS OF THE CLAIMS

With entry of this amendment, claim 63 is canceled and claims 64, 66, and 68-79 are pending. Claims 78 and 79 are newly added, and claims, 64, 66, 68 71 and 72 are amended. Claims 64 and 68-70 are withdrawn as being directed to non-elected species. Newly added claims 78 and 79 are each readable on the elected species.

Newly added claim 78 is similar to canceled claim 63, but clarifies that the TEM-1 β -lactamase fragment complementation system comprises a first oligopeptide corresponding to an N-terminal fragment of TEM-1 β -lactamase, and a second oligopeptide corresponding to a C-terminal fragment of TEM-1 β -lactamase, wherein the N-terminal fragment has a C-terminus and the C-terminal fragment has an N-terminus located within the solvent exposed loop between Thr 195 and Ala 202 of a TEM-1 β -lactamase protein.

Support for new claim 78 can be found in the instant application (U.S. Pat. App. No. 10/668,778) and the priority document U.S. Pat. App. No. 09/526,106 filed March 15, 2000, of which the instant application is a continuation. For example, page 11, lines 5-10 of the '106 application (and the instant application as filed) state that:

The combined lengths of the N-terminal fragment and the C-terminal fragment may be discontinuous with residues around the break-point deleted, contiguous, or overlapping with residues around the break-point repeated, thereby comprising from 90% to 100% of the total length of the parent protein. Break-point termini are herein defined as the C-terminus of the N-terminal fragment and the N-terminus of the C-terminal fragment. Emphasis added.

Support for a solvent exposed loop between amino acid residues Thr 195 and Ala 202, can be found in the priority documents as indicated in the prior responses. For example, at page 16, lines 10-13, of the '106 priority document and the instant application as filed states that:

An exposed loop was identified by this method between two α -helixes of *E.coli* TEM-1 β -lactamase (approximately Thr195 to Ala 202, between helixes 7 and 8) within which the chain could be broken to produce fragments....

Newly added claim 78 is clearly supported by at least the instant application and the '106 priority document, as indicated by the above referenced passages. In particular, the instant specification, and the '106 priority document provide support for a fragment complementation system comprising a first oligopeptides comprising an N-terminal fragment and a second oligopeptides comprising a C-terminal fragment of a TEM-1 β -lactamase, wherein the C-terminus of the N-terminal fragment and the N-terminus of the C-terminal fragment are located within the solvent exposed loop between amino acid residues Thr 195 and Ala 202 of a TEM-1 β -lactamase parent protein.

Newly added claim 79 depends from independent claim 78 and recites that the C-terminus of the N-terminal fragment and the and N-terminus of the C-terminal fragment are residues Glu 197 and Leu 198 respectively.

The amendments to claims 64, 66, 71 and 72 are made to correct the dependency from claim 63, which is canceled with entry of this amendment, and to replace Class A β -lactamase with TEM-1 β -lactamase as suggested by the Examiner. No new matter is added.

II. PRIORITY CLAIM

As discussed above, newly added claims 78 and 79 are fully supported by the instant application, and at least the '106 priority document filed on March 15, 2000. The Examiner, however, alleges that claims 72-77 are not supported by the '339 application or the '926 application, and has denied our previous priority request, stating that the filing date of the instant application is deemed to be its actual filing date of September 22, 2003. See, page 3 of the Office Action mailed June 12, 2008. Applicants disagree.

Applicants have indicated in the response filed on October 29, 2007, where claims 72-77 are supported by U.S. Provisional App. No: 60/175,968 ('968 app.) filed on January 13, 2000, and the parent application (09/526,106) filed on March 15, 2000, of which the instant application is a continuation. Indeed, the Examiner has even acknowledged that support for the claims to the '106 and '968 applications is not in dispute. See, page 4, paragraph 4 of the Office Action mailed June 12, 2008. Applicants submit that the instant application is entitled to a priority date of at least March 15, 2000 (to the '106 application) in view of the Examiners acknowledgement that neither the '968 nor the '106 applications are in dispute.

In view of the Examiner's acknowledgement that claims 72-77 are supported by at least the '968 and the '106 applications, Applicants respectfully request reconsideration of the priority claim to at least the '106 priority document, filed March 15, 2000, as acknowledged by the Examiner.

III. REJECTIONS UNDER 35 U.S.C. §102(b)

Claims 63, 66, 71 and 72 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Wehrman *et al.* (PNAS (**March 19, 2002**), 99(6):3469-3474) (Reference AB in IDS filed March 18, 2004).

Applicants note that claim 63 is canceled with entry of this amendment, rendering the rejection to this claim moot. Furthermore, Applicants note that new claim 78 is supported by at least by the priority document (USSN 09/526,106) filed **March 15, 2000**, as discussed above. As such, because the priority date for the instant claims is two years prior to the Werhman *et al.* publication, Wehrman *et al.* is not prior art to independent claim 78.

Claims 66, 71 and 72 depend either directly or indirectly from independent claim 78 and include all of the limitations of the claims from which they depend. Because Werhman *et al.* is not prior art to independent claim 78, Werhman *et al.* cannot anticipate independent claim 78. Similarly, Wehrman *et al.* cannot anticipate the claims that depend from claim 78.

In light of the claims as presently recited and the arguments presented above, Applicants request that the Examiner withdraw the rejection.

IV. REJECTIONS UNDER 35 U.S.C. §102/103

Claims 63, 66 and 71 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by, or in the alternative under 35 U.S.C. §103(a) as allegedly being unpatentable and obvious over Michnick *et al.* (U.S. Pat. No. 6,828,099 filed **May 31, 2001**) alone or in view of Galarneau *et al.* (*Nat. Biotech.* (**2002**) 20:619-622). Applicants disagree.

Applicants note that claims 63 is canceled with entry of this amendment, rendering the rejection to this claim moot. Applicants further note that newly added claim 78 is fully supported by at least the priority document USSN 09/526,106, filed March 15, 2000, as discussed above. Because the claims as presently recited are entitled to a priority date that is at

least one year prior to the publication of Michnick *et al.* and approximately two years before the publication date for Galarneau *et al.* the cited references, are not prior art.

Claims 66, and 71 depend either directly or indirectly from independent claim 78 and include all of the limitations of independent claim 78. As discussed above, the cited references are not prior art to independent claim 78, and cannot therefore anticipate or render independent claim 78 as obvious. Similarly, the cited references are cannot anticipate nor render dependent claims 66 and 71 as obvious.

For at least the reasons as discussed above, Applicants request that the Examiner withdraw the rejection.

V. REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH - NEW MATTER

The claims as amended do not recite a first and second breakpoint

Claims 63, 66, 71-77 stand rejected under 35 U.S.C. §112, first paragraph as allegedly containing subject matter that was not described in the specification in such a way as to reasonably convey to one of skill in the art that the inventors were in possession of the invention as presently claimed. Specifically, the Examiner alleges that the specification does not provide support for a first and second breakpoint termini between two amino acid residues in a solvent exposed loop between amino acid residues Thr 195 and Ala 202 as recited in claim 63.

Applicants note that claim 63 is canceled with entry of this amendment, rendering the rejection to this claim moot. Applicants further note that new independent claim 78 does not recite a first and second breakpoint, and thus the rejection does not apply. Likewise, claims 66 and 71-77 depend from 78 are likewise the rejection does not apply to the dependent claims.

In light of the claims as amended, and the arguments as presented above, Applicants request that the Examiner withdraw the rejection.

Claims are presently amended to recite TEM-1 β -lactamase

The Examiner contends that only TEM-1 β -lactamase is used in the example and not the Class A β -lactamases from any source. Applicants disagree, but in an effort to expedite prosecution of the application, Applicants have amended the claims to include the limitation of a TEM-1 β -lactamase, as suggested by the Examiner.

In view of the arguments presented above and the claims as presently amended, Applicants request that the Examiner withdraw the rejection.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

/Robert C. Burrows/

Robert C. Burrows Ph.D.
Reg. No. 61,039

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 415-576-0200
Fax: 415-576-0300
Attachments
RCB:rcb
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